

CURRICULUM VITAE

DR. TAN GEOK HUN



A. BUTIR-BUTIR PERIBADI (<i>Personal Details</i>)	
Full Name:	TAN GEOK HUN
Position:	Senior Lecturer/ Unit Coordinator
Office Address:	Department of Agriculture Technology, Faculty of Agriculture, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor Darul Ehsan Tel: +603-89474893 Fax: +603-89381015 Microbial Culture Collection Unit, Institute of Bioscience, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor Darul Ehsan Tel: + 603-89472189/2178
Email:	geok_hun@upm.edu.my
Nationality:	Malaysian
SPECIALIZATION	Virology (Genetic Engineering and Molecular Biology) H-index = 3 (Scopus) H-index = 5 (Google Scholar)
RESEARCH AREAS	(1) Phage display and phage therapy for diseases control (2) Development of Microbial Culture Collection and System Management

B. KELAYAKAN AKADEMIK (<i>Academic Qualification</i>)			
Qualification obtained	Institution	Year obtained	Area of Specialization
Doctor of Philosophy (Ph.D)	Universiti Putra Malaysia	2006	Genetic Engineering and Molecular Biology (Virology)
Master of Science (MSc.)	Universiti Putra Malaysia	2002	Microbiology
Bachelor Science of Bioindustry	Universiti Putra Malaysia	1999	Major: Bioprocess and Microbial Technology

C. KEMAHIRAN BAHASA (<i>Language Proficiency</i>)					
<i>Language</i>	<i>Poor (1)</i>	<i>Moderate (2)</i>	<i>Good (3)</i>	<i>Very good (4)</i>	<i>Excellent (5)</i>
English				/	
Bahasa Melayu				/	
Chinese			/		
Other			/ (Thai)		

D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN (<i>Scientific experience and Specialisation</i>)				
Organization	Position	Start Date	End Date	Expertise
Safe Handling of Liquid Nitrogen (N ₂), Linde Malaysia Sdn Bhd	Senior Research Officer	2012	2012	Handling of Liquid Nitrogen
Plant Tissue Culture, Universiti Malaya	Senior Research Officer	2012	2012	Plant tissue culture
Plant Cryopreservation Techniques, Universiti Malaya	Senior Research Officer	2012	2012	Cryopreservation technique
Training on Long Term Preservation and Management of Microbial Resources with Agricultural Importance, ACM and SEARCA, Science Park, Thailand,	Senior Research Officer	2011	2011	Preservation technique of microbial resources
Culture Collection Management, BIOTEC, Thailand	Senior Research Officer	2009	2009	Culture collection management
Training on Preservation Techniques using freeze drying and liquid drying of filamentous fungi, yeasts and bacteria, BIOTEC, Thailand	Senior Research Officer	2009	2009	Freeze drying, liquid drying and cryopreservation technique of fungi, yeasts and bacteria
Training on Identification of Bacteria and filamentous fungi using Biolog and	Senior Research	2008	2009	Identification techniques

molecular method, MARDI	Officer			
Asian Consortium for Conservation and Sustainable Use of Microbial Resources (ACM)	Malaysia Delegate/ Exco	2008	Current	Preservation and culture collection management
ACM Human Resources Development Task Force (TF-HRD)	Malaysia Delegate	2016	Current	Planning and execution of HRD activity among ASIAN members
ACM Mutual Aid Association for MBRCs (TF-MAA)	Malaysia Delegate	2016	Current	Promoting accessibility to microbial resources and legal transfer by information sharing, improved administration and association among Biological Resources Centre (BRCs) ASIAN
Malaysian Society for Microbiology (MSM)	Member	2000	2013	Microbiology related field
Malaysian Society for Microbiology (MSM)	Auditor	2015	2017	Microbiology related field

E. PEKERJAAN (Employment)				
Employer	Designation	Department	Start Date	Date Ended
Universiti Putra Malaysia (UPM)	Senior Lecturer	Department of Agriculture Technology, Faculty of Agriculture	10 July 2013	Current
Universiti Putra Malaysia (UPM)	Unit Coordinator	Microbial Culture Collection Unit, Institute of Bioscience	02 May 2014	Current
Malaysian Agricultural Research and Development Institute (MARDI)	Senior Research Officer	Bioprocessing Programme, Biotechnology Research Centre	2010	2013
Malaysian Agricultural Research and Development Institute (MARDI)	Research Officer	Strategic Resources Research Centre	2006	2010
Universiti Tunku Abdul Rahman (UTAR)	Assistant Professor	Department of Biotechnology, Faculty of Biotechnology and Engineering	2005	2006

F. ANUGERAH DAN HADIAH (<i>Honours and Awards</i>)				
Name of awards	Title	Award Authority	Award Type	Year
Research Awards	(1) Gold Medal Award - British Invention, Innovation and Technology Show (BIS 2011), London, United Kingdom	United Kingdom	International, Project leader	2011
	(2) Special Award (International Consumer Double Gold Award) - British Invention, Innovation and Technology Show (BIS 2011), London, United Kingdom	United Kingdom	International, Project leader	2011
	(3) Gold Medal Award - International Invention, Innovation and Technology Exhibition (ITEX 2011), KLCC	Malaysia	International, Project leader	2011
	(4) Malaysia Innovative Product Award – International Invention, Innovation and Technology Exhibition (ITEX 2011), KLCC	Malaysia	International, Project leader	2011

	(5) Special Award (World Intellectual Property Organization, WIPO - Best Woman Invention, International Invention, Innovation and Technology Exhibition (ITEX 2011), KLCC	WIPO	International, Project leader	2011
	(6) Silver Medal Award - BioInno 2010/ BioMalaysia 2010, KLCC	Malaysia	Nation, Project leader	2010
	(7) Silver Medal Award - MARDI Science and Technology Exhibition 2009/2010, MAEPS	Malaysian Agricultural Research and Development Institute (MARDI)	Nation, Project leader	2010
	(8) Gold Medal Award - MARDI Science and Technology Exhibition (MSTE 2008), MAEPS	Malaysian Agricultural Research and Development Institute (MARDI)	Nation, Project leader	2008
	(9) Silver Medal Award – Hari Inovasi MARDI 2015	Malaysian Agricultural Research and Development Institute (MARDI)	Nation, Collaborator	2015
	(10) Silver Medal Award – Hari Inovasi MARDI	Malaysian Agricultural Research and	Nation, Collaborator	2016

	2016	Development Institute (MARDI)		
	(11) Silver Medal Award – Pameran Reka Cipta and Penyelidikan UPM 2003	Universiti Putra Malaysia	Nation, Collaborator	2003
	(12) Geran Sanjungan Penyelidikan Tahun 2014 (Projek: Characterization, identification and preservation of beneficial microbial for agriculture sector)	Universiti Putra Malaysia	Nation, Peringkat university, award RM 3325.00	2014
Awards of Merit	(1). Anugerah Perkhidmatan Cemerlang (APC) 2014	Universiti Putra Malaysia (UPM)	Nation	2014
	(2). Anugerah Perkhidmatan Cemerlang (APC) 2015	Universiti Putra Malaysia (UPM)	Nation	2015
	(3). Anugerah Perkhidmatan Cemerlang (APC) 2016	Universiti Putra Malaysia (UPM)	Nation	2016
	(3). Anugerah Perkhidmatan Cemerlang (APC) 2008	Malaysian Agricultural Research and Development Institute (MARDI)	Nation	2008
	(4). Anugerah Penulis Muda	Malaysian Agricultural	Nation	2010

	Sains Terbaik 2009/2010	Research and Development Institute (MARDI)		
	(5). Anugerah Khas Pengarah Pusat Bioteknologi 2011	Malaysian Agricultural Research and Development Institute (MARDI)	Nation	2011

G. SENARAI PENERBITAN (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan) (List of publications – author (s), title, journal, volume, page and year published)

<p>(i) Journals (1999 – 2016) (Verified from RMC/ Library)</p>	<p>Citation indexed (ISI/ Scopus)</p> <ol style="list-style-type: none"> 1. Khulood Hamid Dakheel, Abdul Rahim Raha, Vasantha Kumari Neela, Jameel R. Al-Obaidi, Geok Hun Tan and Khatijah Yusoff. 2016. Methicillin-resistant Staphylococcus aureus biofilms and their influence on bacterial adhesion and cohesion. BioMed Research International 2016: 1-14. Q3 2. W.Z. Wong, P.S. H'ng, K.L. Chin, Ahmad Said Sajap, G.H. Tan, M.T. Paridah, Soni Othman, E.W. Chai and W.Z. Go. 2015. Preferential use of carbon sources in culturable aerobic mesophilic bacteria of <i>Coptotermes curvignathus</i>'s (Isoptera: Rhinotermitidae) gut and its foraging area. Environmental Entomology 44 (5): 1367-1374. Q2 3. W.Z. Go, P.S. H'ng, M. Y. Wong, G.H. Tan, A. Luqman Chuah, U. Salmiah, R. Toczyłowska-Maminska, O. Soni, W.Z. Wong, K.L. Chin, E.W. Chai. Occurrence and characterisation of Mycoflora in soil of different health conditions associated with white root rot disease in Malaysia rubber plantation. Journal of Rubber Research 18 (3): 159-170. Q4 4. Tan, G.H., Yusoff, K., Seow, H.F. and Tan, W.S. 2007. A phage-displayed single chain variable fragment that interacts with hepatitis B core antigen: library construction, selection and diagnosis. Journal of Clinical Virology 38 (1): 49-56. Q2. 5. Tan, W.S., Tan, G.H., Yusoff, K., Seow, H.F. and 2005. A phage-displayed cyclic peptide that interacts tightly with the immunodominant region of hepatitis B surface antigen. Journal of Clinical Virology 34: 35-41. Q2 6. Tan, G.H., Yusoff, K., Seow, H.F. and Tan, W.S. 2005. Antigenicity and immunogenicity of the immunodominant region of hepatitis B surface antigen
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	<p>displayed on bacteriophage T7. <i>Journal of Medical Virology</i> 77 (4): 475-480. Q3</p> <ol style="list-style-type: none"> 7. Tan, G.H., Yusoff, K., Seow, H.F. and Tan, W.S. 2003. Display of immunodominant region of hepatitis B surface antigen on bacteriophage T7. <i>Journal of Clinical Virology</i> 28 Suppl. 1: S19 - S80. Q2 8. Sukirah Abdul Rahman, Ainaa Abdul Kahar, Azlina Mansor, Dang Lela Murni, Aminuddin Hussin, Shaiful Adzni Sharifudin, Tan Geok Hun, Nur Yuhasliza Abdul Rashid, Muhammad Anas Othaman and Kamariah Long. 2016. Identification of potential indigenous microbe from local fermented vegetables with antimicrobial activity. <i>Jurnal Teknologi</i> 72 (1): 1-6. 9. Mohd Shaufi Mohd Asrore, Chin Chin Sieo, Yoke-Kqueen Cheah, Chun Wie Chong, Abdul Rahman Omar, Yin Wan Ho and Geok Hun Tan. 2016. Rep-PCR analyses on discrimination of <i>Escherichia coli</i> isolates recovered from mucosal contents of chicken intestines. <i>BMC Research Notes</i> (Submitted). Scopus, CA 10. Nusaibah SA., Ghazala Saad and Tan Geok Hun. 2016. Artificial inoculation for studying suppression of Ganoderma disease of oil palm via pre-inoculation of <i>Trichoderma harzianum</i> and <i>Bacillus cereus</i> consortium. <i>Tropical Plant Pathology</i> (Submitted). Scopus. Q3 11. Wan Rusmarini, Umi Kalsom Md Shah, Mohd Puad Abdullah, Suhaila Mamat and Tan Geok Hun. 2016. Identification of <i>Trichoderma harzianum</i> T3.13 and Characterization of its interaction with <i>Neoscytalidium dimidiatum</i> U1, a pathogenic fungus isolated from dragon fruit (<i>Hylocereus polyrhizus</i>). <i>Journal of Tropical Agricultural Science</i> (Submitted). Scopus
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Non-citation indexed (Google Scholar and others)

1. N. Q. Jonit, Y.C. Low and **G.H.Tan**. 2016. *Xanthomonas oryzae* pv. *oryzae*, biochemical tests, rice (*Oryza sativa*), bacterial leaf blight (BLB) disease, Sekinchan. Journal of Applied and Environmental Microbiology. 4 (3): 63-69. CA
2. M.Z.A. Radhi, M.B Adam, H. M. Saud, M.N. Hamid, P.S.H. Tony and **G.H. Tan**. 2016. Efficacy of smart fertilizer for combating bacterial wilt disease in *Solanum lycopersicum*. Direct Research Journal of Agriculture and Food Science 4 (6): 137-143. CA
3. **G.H. Tan**, M.S. Nordin and P.S.H. Tony. 2015. Characterization and identification of bacteriophage isolated from sewage and infected tomato soil. Global Journal of Microbiology Research 3 (2): 127-133. CA
4. **G.H. Tan** and S.A. Nazaruddin. 2015. Isolation, characterization and identification of effective microorganisms from Malaysia biofertilizer products. Direct Research Journal of Agriculture and Food Science 3 (8): 157-161. CA
5. M. Nur Ilida, A.S. Asiah, **G.H. Tan**, S. Nur Baizura and M.N. Mohd Effendi. 2015. Lysis activity of bacteriophages isolated from raw meat and their potential as biocontrol agent against *Escherichia coli*. Journal of Tropical Agriculture and Food Science 43 (1): 55-60.
6. **G.H. Tan** and W.S. Tan 2014. Comparison between phage-ELISA and phage dot-blot assay methods for the detection of hepatitis B surface antigen and its antibodies in human serum. International Journal of Wellness of Biotechnology Industries 3 (4): 128-135. CA
7. **G.H. Tan** and P.S.H. Tony. 2014. Disease control of *Ralstonia solanacearum* in tomato and *Xanthomonas campestris* in pitaya using bacteriophage. Direct Research Journal of Agriculture and Food Sciences. 2 (10): 147-155. CA
8. **Tan, G.H.** and Mustapha, N. 2014. A comparative analysis of preservation of functional food cultures by freeze-drying, liquid-drying and freezing methods. Direct Research Journal of Agriculture and Food Science 2: 13-18. CA
9. M. Nur Ilida, **G.H.Tan**, S. Nur Baizura and M.N.Mohd Effendi. 2013. Isolation and virion morphology classification of coliphages from local foods. Journal of Tropical Agriculture and Food Science 41 (2): 349-357.
10. **G.H. Tan** and K. Long. 2012. Preliminary study of anticoccidial activity of medium chain fatty acids (MCFA) and their corresponding monoglycerides on broiler chicken coccidiosis. International Journal of Wellness of Biotechnology Industries 1 (2): 134-141. CA
11. **G.H. Tan**, M.S. Nordin and A.B. Napsiah. 2010. The effect of phage infection on pathogenic activity of *Ralstonia solanacearum* in tomato. Journal of Tropical Agriculture and Food Science 38(1): 123-130. CA

	<p>12. G.H. Tan, M.S. Nordin and A.B. Napsiah. 2010. Identification of potential bacteria controlling pathogenic fungi <i>Rhizoctonia solani</i> in rice. <i>Journal of Tropical Agriculture and Food Science</i> 38(2): 249-256. CA</p> <p>13. G.H. Tan, M.S. Nordin, T.L. Kert, A.B. Napsiah and L.S.H. Jeffrey. 2009. Isolation of beneficial microbes from biofertilizer products. <i>Journal of Tropical Agriculture and Food Science</i> 37(1): 103-109. CA</p> <p>14. G.H. Tan, M.S. Nordin, A.B. Napsiah and H. Rosnah 2009. The Lysis Activity of Bacteriophages Isolated from Sewage against <i>Ralstonia solanacearum</i> and <i>Erwinia chrysanthemi</i>. <i>Journal of Tropical Agriculture and Food Science</i> 37 (2): 203-209. CA</p> <p>15. G.H. Tan, M.S. Nordin and A.B. Napsiah. 2008. Isolation and characterization of lytic bacteriophages from sewage water. <i>Journal of Tropical Agriculture and Food Science</i> 36 (1): 287-291. CA</p> <p>16. L.S.H. Jeffrey, M.R. Azrizal, A.A.H. Nor Ayshah and G.H. Tan. 2008. Isolation and bioprospecting of actinomycetes isolated from Ayer Keroh Recreational Park, Malaysia. <i>Journal of Tropical Agriculture and Food Science</i> 36 (2):155-163.</p> <p>17. Y.B. Ibrahim and G.H. Tan. 1999. Bioefficacy of entomogeneous fungal isolates of <i>Paecilomyces fumosoroseus</i>, <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> var. <i>majus</i> on <i>Hellula undalis</i> (Lepidoptera: Pyralidae). <i>Journal of Plant Protection in the Tropics</i> 12(2): 134-139.</p>
(ii) Chapter in book	Musliyana Mansor, Raha Abdul Rahim, Tan Geok Hun , Nur Umaira Abu Asan and Noorashah Abd Aziz. 2014. Unique Unicc. NYAWA 2014, pp 146-149.
(iii) Module in Teaching and Learning	PJJ subjects: (1) TKP 3104 (Agricultural Biotechnology) (2) PRT 3402 (Agricultural Biochemistry)
(iv) Proceedings for Seminar/ Conferences	<p>National Level:</p> <ol style="list-style-type: none"> 1. Nor Umaira Abu Asan, Musliyana Mansor and Tan Geok Hun. 2016. Heat tolerant screening of bacteria isolated from oil palm plantation. 33rd Symposium of the Malaysian Society for Microbiology 2016 (MSM2016). 14-17 December 2016. Ramada Plaza Hotel, Melaka, Malaysia. 2. Nor Umaira Abu Asan, Musliyana Mansor and Tan Geok Hun. 2016. Salt tolerant screening of bacteria isolated from oil palm plantation. 33rd Symposium of the Malaysian Society for Microbiology 2016 (MSM2016). 14-

	<p>17 December 2016. Ramada Plaza Hotel, Melaka, Malaysia.</p> <ol style="list-style-type: none"> 3. Tan GH, Alawiah, D, Umaira A.A. and Musliyana M. 2016. Screening of pH tolerance microbes from soil samples. 33rd Symposium of the Malaysian Society for Microbiology 2016 (MSM2016). 14-17 December 2016. Ramada Plaza Hotel, Melaka, Malaysia 4. Mohamad Syafiq Abdul Razak, Nur Qamariah Jonit, Siti Raziah Rosli and Tan Geok Hun. 2016. Preservation of effective microbes using freezing method. 33rd Symposium of the Malaysian Society for Microbiology 2016 (MSM2016). 14-17 December 2016. Ramada Plaza Hotel, Melaka, Malaysia. 5. Tan G.H., Mansor, M. and Abu, N.U.A. 2014. The Role and Perspective of Microbial Culture Collection Unit (UNICC). Agrobiodiversity and Agroenvironment Symposium 2014, 15-18 September 2014, Pullman Hotel, Kuching, Sarawak, Malaysia. 6. G.H. Tan, L. Kamariah H. Aminuddin S. Shaiful Adzni O. Muhammad Anas M. Azlina A.R. Nur Yushaliza, M.Y. Izatul Lail and A.R. Zaireen 2011. Collection of functional food cultures (CFFC). Biomalaysia 2011. 21-23 November, 2011, KLCC, Kuala Lumpur, Malaysia. 7. G.H. Tan, L. Kamariah H. Aminuddin S. Shaiful Adzni O. Muhammad Anas M. Azlina A.R. Nur Yushaliza, M.Y. Izatul Lail and A.R. Zaireen 2011. Long term preservation techniques for microbial resources (Freeze-drying technique). Biomalaysia 2011. 21-23 November, 2011, KLCC, Kuala Lumpur, Malaysia. 8. G.H. Tan, L. Kamariah H. Aminuddin S. Shaiful Adzni O. Muhammad Anas M. Azlina A.R. Nur Yushaliza A.R. Sukirah, A.K. Ainaa, M.Y. Izatul Lail and A.R. Zaireen 2011. Long term preservation techniques for microbial resources (Cryo-preservation technique). Biomalaysia 2011. 21-23 November, 2011, KLCC, Kuala Lumpur, Malaysia. 9. G.H. Tan, M.S. Nordin and A.B. Napsiah 2010. Phage based biopesticide for plant diseases. BioInno Awards 2010. 1-3 Nov 2010. KLCC, Kuala Lumpur, Malaysia. 10. G.H. Tan, M.S. Nordin and A.B. Napsiah 2010. Utilization of bacteriophage for the controlling of bacterial wilt disease in tomato. My1Bio Conference 2010. 30-31 October 2010. Times Square, Kuala Lumpur, Malaysia. 11. G.H. Tan, M.S. Nordin and A.B. Napsiah 2010. Utilization of microbial diversity for controlling plant pathogens. MARDI Science and Technology Exhibition 2010 (MSTE 2010). 15-17 March 2010, MAEPS, MARDI, Serdang, Malaysia. 12. G.H. Tan, M.S. Nordin and A.B. Napsiah 2008. Bioprospecting of phage as biological control agent against bacterial wilt <i>Ralstonia solanacearum</i>. Biodiversity and National Development: Achievements, Opportunities and
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	<p>Challenges. 28-30 May 2008. The Legend Hotel, Kuala Lumpur, Malaysia.</p> <ol style="list-style-type: none"> 13. G.H. Tan, M.S. Nordin and A.B. Napsiah 2008. Bacteriophage as a potential biological control agent against soft rot disease caused <i>Erwinia chrysanthemi</i>. 30th Symposium of Malaysian Society for Microbiology, 16 -19 Aug 2008, Hyatt Regency Resort Kuantan, Pahang, Malaysia. pp 98-100. 14. G.H. Tan, M.S. Nordin and A.B. Napsiah A.B. 2008. Bacteriophages as a viable pathogen control agent. National Conference on Organic Agriculture, 4-6 Nov 2008, Sheraton Subang Hotel and Towers, Selangor, Malaysia. 15. G.H. Tan, M.S. Nordin and A.B. Napsiah. 2008. Phage as biological control agent against bacterial wilt <i>Ralstonia solanacearum</i> in tomato. MARDI Science and Technology Exhibition 2008 (MSTE 2008). 11-13 Nov 2008, MAEPS, MARDI, Serdang, Malaysia. 16. G.H. Tan, M.S. Nordin and A.B. Napsiah 2007. Isolation of bacteriophage from fish ponds using different types of <i>Escherichia coli</i> as a Host. 29th Symposium of Malaysian Society for Microbiology, Primula Beach Resort, 23-26 Nov 2007, Kuala Terengganu, Terengganu, Malaysia. pp 152-155. 17. L.S.H. Jeffrey, M.R. Azrizal, A.A.H. Nor Ayshah and G.H. Tan. 2006. Diversity of actinomycetes isolated from Ayer Keroh Recreational Park, Malaysia. National Conservation of Biodiversity. 26-28 Dec 2006, Sarawak, Malaysia. 18. Tan, W.S.,Tan, G.H., Yusof, K., Seow, H.F. 2005. Detection of hepatitis B surface antigen with a direct phage-ELISA. Exhibition of invention, research & innovation UPM. Faculty of Biotechnology and Biomolecular Sciences, UPM, Selangor, Malaysia. pp 58. 19. Tan, G.H.,Yusoff, K., Seow, H.F. and Tan, W.S. 2005. Display of immunodominant region of hepatitis B surface antigen on bacteriophage T7. Colloquium on viruses veterinary and public health importance, Hotel Equatorial Bangi, Bangi, Selangor, Malaysia. pp 193-194. 20. Tan, G.H.,Yusoff, K., Seow, H.F. and Tan, W.S. 2003. The immunodominant region of HBV displayed on bacteriophage T7 elicits a strong immune response in rabbits. 14th National Biotechnology Seminar, Penang, Malaysia. pp 95. 21. Tan, G.H.,Yusoff, K., Seow, H.F. and Tan, W.S. 2003. Display of the immunodominant region of hepatitis B surface antigen on bacteriophage T7. Conference in Conjunction with The Public Institution of Higher Learning (IPTA) R & D Exposition 2003, Putra World Trade Centre (PWTC), Kuala Lumpur, Malaysia. pp 86. 22. Tan, G.H.,Yusoff, K., Seow, H.F. and Tan, W.S. 2003. Phage display of the immunodominant regions of surface and core antigens of hepatitis B virus on bacteriophage T7, 13th Scientific Meeting of MSMBB, Putrajaya Marriot Hotel, Putrajaya, Malaysia. pp 31-32.
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23. **Tan, G.H.**, Halimi, M.S., Shamsuddin, Z.H. and Khanif, M.Y. 2000. Selection of diazotrophs from rice as a potential biofertilizer. *Conference in Conjunction with the Public Institution of Higher Learning (IPTA) R & D Exposition 2000, UPM.*
24. **Tan, G.H.**, Halimi, M.S., Shamsuddin, Z.H. and Khanif, M.Y. 2000. Isolation and selection of diazotrophs from rice as a potential biofertilizer. *Soil Science Conference, Kota Kinabalu, Sabah, Malaysia.*
25. **Tan, G.H.**, Halimi, M.S., Zulkifli, H.S. and Khanif, Y. 2000. Determination of Indole-3-Acetic Acid produced by bacteria from rice using modified colorimetric methods. *23rd Symposium of The Malaysian Society for Microbiology, Aseana Resort, Langkawi, Kedah, Malaysia.*

International Level:

1. **Tan G.H.**, Mansor, M. and Abu, N.U.A. 2016. Microbial Culture Collection Unit, Universiti Putra Malaysia. 3rd meeting of ASEAN Networking of Microbial Utilization (AnMicro3) and 2nd ASEAN Microbial Biotechnology Conference. 3-4 August 2016, Sanur Paradise Plaza Hotel, Bali, Indonesia.
2. Nur Qamariah Jonit, Khairulmazmi Ahmad, Mohd Bakri Adam, Low YC and **Tan Geok Hun**. 2016. Isolation and characterization of *Xanthomonas oryzae* pv. *Oryzae* from infected rice. International Agriculture Conference (IAC 2016). 4-6 October 2016. Hotel Bangi-Putrajaya, Malaysia.
3. **Tan G.H.**, Mansor, M. and Abu, N.U.A. 2016. Microbial Culture Collection Unit, Universiti Putra Malaysia. 13th Asian Consortium for the Conservation and Sustainable use of Microbial Resources (ACM). 8-10 November 2016. Chandigarh, India.
4. **Tan G.H.**, Mansor, M. and Abu, N.U.A. 2015. The role and perspective of Microbial Culture Collection Unit (UNICC). Regional Conference on Culture Collection (RCCC 2015). 17-20 August 2015. Institute of Bioscience, Universiti Putra Malaysia.
5. **G.H. Tan** and P.S.H. Tony. 2015. Phage therapy for diseases control in tomato and dragon fruit. Phages 2015. 1-2 September 2015. St Hilda College, Oxford, United Kingdom.
6. **Tan, G.H** and Nordin, M.S. 2015. Isolation and identification of *Dickeya dadantii* from infected pineapple. International Congress of the Malaysian Society for Microbiology (ICMSM 2015). 7-10 December 2015. Bayview Beach Resort Penang, Pulau Pinang, Malaysia.
7. **G.H. Tan** and P.S.H. Tony. 2014. Preliminary Lysis Study of Phages on Pathogenic Bacteria. International Agriculture Congress 2014, 25-27 November 2014, Pullman Putrajaya Lakeside, Putrajaya, Malaysia.
8. Radhi, M.Z.A., Malik, Z., Ibrahim, I.Z., Wan Othman, W.Y.F and **Tan, G.H.** 2014. Evaluation of Different Diets for Organically Reared Kampong Chicken.

	<p>International Agriculture Congress 2014, 25-27 November 2014, Pullman Putrajaya Lakeside, Putrajaya, Malaysia.</p> <p>9. G.H. Tan, L. Kamariah H. Aminuddin S. Shaiful Adzni O. Muhammad Anas M. Azlina A.R. Nur Yushaliza A.R. Sukirah, A.K. Ainaa, M.Y. Izatul Lail and A.R. Zaireen 2012. Utilization and management of microbial resources as functional food cultures in Biotechnology Research Centre. 1st Regional Conference on Agrobiodiversity Conservation and Sustainable Utilization (RAC 1), 25-27 September 2012, Langkawi, Kedah, Malaysia.</p> <p>10. G.H. Tan and K. Long. 2012. Preliminary Study of Anticoccidial Activity of Medium Chain Fatty Acids (MCFA) and their Corresponding Monoglycerides on Broiler Chicken Coccidiosis, 4th International Conference on Biotechnology for the Wellness Industry (ICBWI), 20-21 June 2012, Kuala Lumpur, Malaysia.</p> <p>11. G.H. Tan and K. Long. 2011. Anticoccidial of medium chain fatty acids and corresponding monoglycerides in chicken. International Congress of Malaysian Society for Microbiology (ICMSM 2011), 8-11 Dec 2011, Pulau Pinang, Malaysia.</p> <p>12. Tan Geok Hun, Noraini Mustapha, Aminah Abdullah and Hasim Ismail. 2011. Phage-based biopesticide for plant diseases. 12th British Invention, Innovation and Technology Show (BIS 2011), 19-22 Oct 2011, London, United Kingdom.</p> <p>13. G.H. Tan and A. Abdullah. 2011. Effect of phages on the pathogenicity study of <i>Ralstonia solanacearum</i> in tomato. The 1st International Phage Conference, Bacteriophage Application, 19-21 Sept 2011, St Hilda's College, Oxford, United Kingdom.</p> <p>14. G.H. Tan, M.S. Nordin and A.B. Napsiah 2009. Microbial diversity and application in controlling plant diseases. International Congress of Malaysian Society for Microbiology (ICMSM 2009), 1-4 Dec 2009, Parkroyal Hotel, Pulau Pinang, Malaysia.</p> <p>15. Tan, G.H., Yusoff, K., Seow, H.F. and Tan, W.S. 2003. Display of immunodominant region of HBsAg on T7. 6th Asia Pacific Congress of Medical Virology, Kuala Lumpur, Malaysia. pp 80.</p>
<p>(v) IP (Patents, Trademark)</p>	<p>(1) Tan, G.H. 2011. Method of treating <i>Ralstonia solanacearum</i> infected plant. (Patent Application Number: PI2011002598).</p> <p>(2) Tan, W.S., Tan, G.H., Yusof, K., Seow, H.F. 2014. Detection of hepatitis B surface antigen. (Patent Granted Number: MY149830A).</p> <p>(3) Sieo Chin Chin, Mohd Hair Bejo, Jalila Abu, Tan Wen Siang, Tan Geok Hun. 2015. STPphage – Phage preparation to Reduce <i>Salmonella</i> in Poultry.</p>

	(4) Sieo Chin Chin, Mohd Hair Bejo, Jalila Abu, Tan Wen Siang, Tan Geok Hun. 2015. ECPhage- Phage preparation to Reduce <i>E. coli</i> in Poultry.
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H. (i) PROJEK PENYELIDIKAN TERDAHULU (Past Research Project)					
Project No.	Project Title	Role	Year	Source of fund	Status
(1) 05-03-08-SF0169	The use of indigenous bacteria and phage in controlling <i>Ralstonia solanacearum</i> in tomato	Project leader	01 April 2008 - 31 March 2010	Science Fund (Total Approved: RM 67,000.00)	Completed
(2) 05-03-08-SF1088	Field evaluation of formulated phages in controlling bacterial wilt disease caused by <i>Ralstonia solanacearum</i> in tomato	Project leader	01 June 2010 - 31 May 2012	Science Fund (Total Approved: RM 103,400.00)	Completed
(3) NIRB209610 (Industrial grant)	Performance of phage-based biopesticide incorporated in fertilizer for prevention and disease control of tomato and dragon fruit (All Cosmos Industries Sdn Bhd)	Project leader	01 July 2011 - 31 June 2012	Industrial Fund (Total Approved: RM 51,750.00)	Completed
(4) NIRB209610 (Part 1) (Industrial grant)	Performance of phage-based biopesticide incorporated in fertilizer for controlling bacterial wilt disease in chilli, Shandong, China (All Cosmos Industries Sdn Bhd and Shandong Academy of Agricultural Sciences, China)	Project leader	01 August 2012 - December 2012	Industrial Fund (Total Approved: RM 20,000.00)	Completed

(5) NIRB209610 (Part 2) (Industrial grant)	Performance of phage-based biopesticide incorporated in fertilizer for controlling bacterial wilt disease in chilli, Shandong, China (All Cosmos Industries Sdn Bhd and Shandong Academy of Agricultural Sciences, China)	Project leader	Jan 2013- May 2013	Industrial Fund (Total Approved: RM 20,000.00)	Completed
(6) JP-RS-0135	Isolation of beneficial phages for controlling <i>Erwinia chrysanthemi</i> in pineapple and <i>Ralstonia solanacearum</i> in tomato	Project leader	01 Oct 2007 - 30 Sept 2009	Wang Rezab MARDI (WRM) (Total Approved: RM 10,000.00)	Completed
(7) P21003001250001	Potential of fermented tea (Kombucha) as health supplement and natural food preservatives	Collaborator	2010-2011	MARDI Development Fund (Total Approved: RM 10,000.00)	Completed
(8) P21003001250001	Development of Collection of Functional Food culture (CFFC)	Collaborator	Jan 2011- Jun 2013	MARDI Development Fund (Total Approved: RM 287,000.00)	Completed
(9) 05-03-08-SF0155	Bioprospecting of effective microorganisms for the control of <i>Anthraxnose</i> on chili	Collaborator	01 April 2008 - 31 March 2010	Science Fund (Total Approved: RM 87,000.00)	Completed
(10) 05-03-08-SF1122	Development of biological disinfectant using bacteriophage to control pathogenic bacteria on food contact surfaces	Collaborator	01 Dec 2010 -31 Dec 2012	Science Fund (Total Approved: RM 178,290.00)	Completed

(11) WRM 048	Agrobiodiversity Information System	Collaborator	02 Jan 2006 - 31 Dec 2010	Wang Rezab MARDI (WRM) (Total Approved: RM 400,000.00)	Completed
(12) TF0106B139	Value added virgin coconut oil with antimicrobial properties and its potential application	Collaborator	2008-2010	Techno Fund (Total Approved: RM 4.5 M)	Completed
(13) TF0512B074	Up scaling of bacteriophages production as biopesticide for controlling crops diseases	Collaborator	2013 - 2016	Techno Fund (Total Approved: RM 1.5 M)	Completed
(14)GP-IPM/2013/9400100	Screening of mycophage as potential phage therapy in agriculture	Project Leader	1 Nov 2013-31 Oct 2015	UPM (Total Approved: RM 50,000.00)	Completed
(15) Industrial grant (MoA project)	Characterization, identification and preservation of beneficial microbial for agriculture sector	Project Leader	1 Nov 2013-31 Oct 2015	All Cosmos Industries Sdn Bhd (Total Approved: RM 61,000.00)	Completed
(16) Industrial grant (MoA project)	Up scaling of bacteriophages production as biopesticide for controlling crops diseases	Project Leader	8 Sept 2014-7 Sept 2016	Arif Efektif Sdn Bhd (Total Approved: RM 340,234.50)	Completed
(17) Industrial grant (Contract Research)	Screening potential microbes for controlling <i>Ganoderma boninense</i>	Project Leader	1 Sept 2015-30 Nov 2015	EC Sham Biotech Sdn Bhd (Total Approved: RM 5,560.00)	Completed

H. (ii) PROJEK PENYELIDIKAN SEKARANG (Current Research Project)					
Project No.	Project Title	Role	Year	Source of fund	Status
(1) FRGS/2/2014/STWN03/UPM/02/10	Screening of bacteriophage for controlling bacterial blight disease in rice	Project leader	1 Dec 2014-30 Nov 2017	KPM Fund (Total Approved: RM 112,000.00)	On-going (80% completed)
(2) GP-IPS/2014/9446500	Production of bacteriophage for controlling <i>E. papayae</i> papaya in papaya and <i>D. dadantii</i> in pineapple	Project leader	15 Mac 2015-15 Sept 2016	UPM Fund (Total Approved: RM15,000.00)	Final report preparation
(3) GP-IPS/2015/9460000	Phage therapy for controlling <i>Xanthomonas oryzae pv oryzae</i> in rice	Project leader	1 Dec 2015-1 Dec 2017	UPM Fund (Total Approved: RM14,000.00)	On-going (65% completed)
(4) FRGS/1/2015/WAB01/UPM/02/10	Functional analyses of phage-based microbiome engineering to enhance probiotics efficiency in broiler chickens	Collaborator	2 Nov 2015-1 Nov 2017	KPM Fund (Total Approved: RM93,200.00)	On-going (80 % completed)
(5) Industrial grant	Testing of new formulation fertilizers for optimization growth in oil palm	Project leader	1 Dec 2014-30 Nov 2018	All Cosmos Industries Sdn Bhd (Total Approved: RM 186,137.00)	On-going (60% completed)

I. PENGALAMAN MENGAJAR (Teaching Experience)					
Institution	Year	Subject	Credit hours	No of students	Teaching assessment
Universiti Tunku Abdul Rahman (UTAR)	2005	(i) Principle in Biotechnology	(2+1)	30	-
		(ii) Cell Biology	(2+1)	30	-
	2006	(i) Fermentation Technology	(2+1)	25	-

		(ii) Principle in Biochemistry	(2+1)	30	-
		(iii) Biotechnology Lab	(0+1)	30	-
Universiti Putra Malaysia (UPM)	Semester 1 2013/2014	(i) Agricultural Biochemistry (1); PRT3402 (1)	(2+1)	57	Share teaching
		(ii) Agricultural Biochemistry (2); PRT 3402 (2)	(2+1)	50	Share teaching
		(iii) Agriculture and Man (43); PRT2008 (43)	(2+0)	59	4.73
Universiti Putra Malaysia (UPM)	Semester 2 2013/2014	(i) Agricultural Biochemistry (1); PRT3402 (1)	(2+1)	33	4.86
		(ii) Agricultural Biochemistry (2); PRT 3402 (2)	(2+1)	38	4.87
		(iii) Agriculture and Man (19); PRT2008 (19)	(2+0)	24	4.76
Universiti Putra Malaysia (UPM)	Semester 1 2014/2015	(i) Basic Agriculture (1); PRT2001 (1)	(2+1)	33	4.91
		(ii) Agriculture and Man (21); PRT2008 (21)	(2+0)	50	4.61
		(iii) Agriculture and Man (20); PRT2008 (20)	(2+0)	42	4.56
		(iv) Agricultural Biochemistry (3); PRT 3402 (3)	(2+1)	50	4.85
		(v) Agricultural Biochemistry (1); PRT 3402 (1)	(2+1)	50	Share teaching
Universiti Putra Malaysia (UPM)	Semester 2 2014/2015	(i) Agricultural Biochemistry (1); PRT 3402 (1)	(2+1)	47	4.81
		(ii) Agricultural Biochemistry (2); PRT 3402 (2)	(2+1)	40	4.85
		(iii) Agriculture and Man (2); PRT2008 (2)	(2+0)	43	4.53
		(iv) Agriculture and Man (11); PRT2008 (11)	(2+0)	51	4.67

Universiti Putra Malaysia (UPM)	Semester 1 2015/2016	(i) Agricultural Biochemistry (3); PRT 3402 (3)	(2+1)	41	4.73
		(ii) Agricultural Biotechnology (2); TKP3104 (2)	(2+1)	41	4.87
		(iii) Agricultural Biotechnology (1); TKP3104 (1)	(2+1)	18	Share teaching
Universiti Putra Malaysia (UPM)	Semester 2 2015/2016	(i) Agricultural Biochemistry (1); PRT 3402 (1)	(2+1)	34	4.73
		(ii) Agricultural Biochemistry (2); PRT 3402 (2)	(2+1)	39	4.83
		(iii) Agriculture and Man (5); PRT2008 (5)	(2+0)	27	4.52
		(iv) Agricultural Biotechnology (1); TKP3104 (1)	(2+1)	7	Share teaching
Universiti Putra Malaysia (UPM)	Semester 1 2016/2017	(i) Agricultural Biotechnology (1); TKP3104 (1)	(2+1)	22	Share teaching (4.75)
		(ii) Agricultural Biotechnology (2); TKP3104 (2)	(2+1)	17	4.78
		(iii) Agricultural Biochemistry (2); PRT 3402 (2)	(2+1)	41	4.88
Universiti Putra Malaysia (UPM)	Semester 2 2016/2017	(i) Agricultural Biochemistry (1); PRT 3402 (1)	(2+1)	Next semester	
		(ii) Agricultural Biochemistry (2); PRT 3402 (2)	(2+1)	Next semester	
		(iii) Agriculture and Man (19); PRT2008 (19)	(2+0)	Next semester	
		(iv) Agricultural Biotechnology (1); TKP3104 (1)	(2+1)	Next semester	

J. PENYELIAAN PELAJAR (*Supervision of students*)**(i) Intern Students**

No.	Position in Committee	Name of Student	University/ Institution	Period
1.	Main supervisor	Hemalatha A/P Turasami	Politeknik Nilai	1/12/2014-17/4/2015
2.	Main supervisor	Rajmeera A/P Krishinen Koote	Politeknik Nilai	1/12/2014-17/4/2015
3.	Main supervisor	Rama Devi A/P Ganesan	Politeknik Nilai	1/12/2014-17/4/2015
4.	Main supervisor	Fahmeeda binti Mohamad Jazamuddin	Universiti Malaysia Terengganu (UMT)	28/6 -18/9/2015
5.	Main supervisor	Nor Akmaliza binti Husin	Universiti Malaysia Terengganu (UMT)	28/6 -18/9/2015
6.	Main supervisor	Nur Liyana binti Rosly	Universiti Malaysia Terengganu (UMT)	28/6 -18/9/2015
7.	Main supervisor	Nur Aishah binti Mohd Noor	Universiti Putra Malaysia (UPM)	6/7-4/9/2015
8.	Main supervisor	Nur Ain Abd Rahman	Unisel	11/1-22/4/2016
9.	Main supervisor	Nur Shida binti Mohd Ali	Unisel	11/1-22/4/2016
10.	Main supervisor	Amalina binti Roslan	Unimap	18/1-3/7/2016
11.	Main supervisor	Zulaikha binti mohd Zakarie	Uitm, Negeri sembilan	20/1-11/3/2016
12.	Main supervisor	Tan Shea Yong	Tar college	1/2-22/4/2016
13.	Main supervisor	Chai Jiong Chen	Tar college	1/2-22/4/2016
14.	Main supervisor	Siti Zubaidah binti Mohd Zahri	Universiti Putra Malaysia (UPM)	22/2-5/8/2016
15.	Main supervisor	Siti Zaleha binti Abdul Hamid	Universiti Putra Malaysia (UPM)	22/2-5/8/2016
16.	Main supervisor	Alawiah binti Daud	Universiti Putra Malaysia (UPM)	22/2-5/8/2016
17.	Main supervisor	Pah Lih Min	Universiti Putra Malaysia (UPM)	2/6-3/9/2016
18.	Main supervisor	Tan Sin Ye	Universiti Putra Malaysia (UPM)	2/6-3/9/2016
19.	Main supervisor	Syafina Izureen Zumiri	Universiti Putra Malaysia (UPM)	2/6-3/9/2016
20.	Main supervisor	Stanley Chai Choon Yip	Universiti Malaya (UM)	3/7-28/8/2016
21.	Main supervisor	Looi Chee Hoe	Tar college	1/2-22/4/2016
22.	Main supervisor	Teoh Weng Seng	Tar college	1/2-22/4/2016
23.	Main supervisor	Wong Yu Ning	Tar college	1/2-22/4/2016
24.	Main supervisor	Irfan Irsyad bin Azahar	Universiti Teknologi Mara	24/7 – 16/9/2016
25.	Main supervisor	Noor Farinna binti Abdul Rahim	Universiti Teknologi Mara	23/1-19/3/2017

(ii) Bachelor

No.	Position in Committee	Name of Student	Thesis Title	Status
1.	Main supervisor	Liu Jian	Screening of antimicrobial activity of bacteria from natural habitats to control <i>Xanthomonas campestris</i> in cabbage	Data collection
2.	Main supervisor	Hamzah Fawwas bin Abd Rani	The efficacy of phage-based fertilizer for controlling <i>Xanthomonas campestris</i> in <i>Hylocereus polyrhizus</i>	Graduated, 2017
3.	Main supervisor	Mohamad Ashshabru Syakirin bin Kamsol	The effectiveness study of foliar nutrient fertilizer on growth and yield of <i>Abelmoschus esculentus</i> L.	Graduated, 2017
4.	Main supervisor	Mohamad Syafiq bin Abdul Razak	Preservation of effective microbes using freezing method	Graduated, 2017
5.	Main supervisor	Muhammad Arif Imran bin Mohd Azmi	Effectiveness study of foliar nutrients on <i>Zea mays</i> . L growth	Graduated, 2017
6.	Main supervisor	Tasnim binti Mazlan	Development of cryo-preservation technique for fungi	Graduated, 2017
7.	Main supervisor	Hafizah binti Alias	Isolation of bacteriophage from soil samples	Graduated, 2016
8.	Main supervisor	Nor Hidayah binti Hassim	Isolation and Characterization of Bacteriophage from Sewage Sample	Graduated, 2015
9.	Main supervisor	Siti Aishah binti Nazaruddin	Isolation and characterization of effective microorganisms from biofertilizer	Graduated, 2015
10.	Main supervisor	Goh Woan Thin	The isolation and characterization of bacteriophage from <i>Musca domestica</i>	Graduated, 2006
11.	Main supervisor	Lim Khee Soon	Extraction of genomic	Graduated, 2006

			DNA from star fruit, carambola and dragon fruit, pitaya	
12.	Main supervisor	Adeline Kuek Hui Sian	Isolation of genomic DNA from kiwi (<i>Actinidia deliciosa</i>) and strawberry (<i>Fragaria verca</i>)	Graduated, 2006
13.	Main supervisor	Wong Jing Neng	Isolation and characterization of bacteriophages from sewage	Graduated, 2006
14.	Main supervisor	Teh Li Shia	Amplification of single chain variable fragment (ScFv) against Hepatitis B core antigen (HBcAg) by polymerase chain reaction (PCR)	Graduated, 2006
15.	Main supervisor	Heow Tsuey Hong	The isolation and characterization of bacteriophages from drainage	Graduated, 2006

(iii) Masters

No.	Position in Committee	Name of Student	Thesis Title	Status
1.	Main supervisor	Mohd Zafrul Arif bin Radhi	Field evaluation of smart fertilizer on controlling <i>Ralstonia solanacearum</i> in tomato and <i>Erwinia mallovivota</i> in papaya	Graduated, 2016 (Passed viva on 23 Dec 2016)
2.	Main supervisor	Musliyana binti Mansor	Characterization, identification and preservation of beneficial microbial from biofertilizer samples	Thesis submitted
3.	Main supervisor	Nurfadzilah binti Mardan	Development of micro soil enhancer from selected plantation waste with the addition of specific microorganism which tested and proven to	Data collection and thesis writing

			contains and produce one or more IAA production, P-solubilization, nitrogen fixer and siderophore production	
4.	Main supervisor	Nur Qamariah binti Jonit	Screening of bacteriophages for controlling bacterial blight disease in rice	Data collection and thesis writing
5.	Co-supervisor	Ghazala Saad Ahmed Abufana	Consortium of microbes as biological control of Ganoderma disease on oil palm	Graduated, 2016 (Passed viva on 29 August 2016)
6.	Co-supervisor	Wan Rusmarini binti Wan Zulkifeli	Expression pattern of endochitinase of endophytic fungi isolated from dragon fruit grown on different carbon sources	Graduated, 2016 (Passed viva on 26 July 2016)

(iv) PhD

No.	Position in Committee	Name of Student	Thesis Title	Status
1.	Main supervisor	Mohd Shaufi Mohd Asrore	Gut flora modulation by phage cocktail to enhance the effects of probiotic in poultry	Thesis submitted
2.	Co-supervisor	Wong Wan Zhen	Controlling of <i>Coptotermes curvignathus</i> in rubber plantation by using cellulose degrading enzyme incorporate with specific viruses	Graduated, 2016 (Passed viva on 16 Nov 2016)
3.	Co-supervisor	Go Wen Ze	Biological controls towards white root rot disease (<i>Rigidoporous lignosus</i>) in <i>Hevea Brasiliensis</i>	Thesis writing
4.	Co-supervisor	Khulood Hamid Dakheel	Mechanism of methicillin-resistant <i>Staphylococcus aureus</i> biofilms degradation by phage therapy	Data collection

K. KEPIMPINAN AKADEMIK DAN SUMBANGAN KEPADA UNIVERSITI, MASYARAKAT DAN NEGARA (*Academic Leadership and Contribution to the University, Society and Country*)

(i) Professional Services (2005 - 2016)

No	Position	Committee/ Duties	Institution/ Body	Year
1.	Auditor	Malaysian Society for Microbiology	Malaysian Society for Microbiology (MSM)	2015 - 2017
2.	EXCO	Asian Consortium for Conservation and Sustainable Use of Microbial Resources (ACM)	Asian Consortium for Conservation and Sustainable Use of Microbial Resources (ACM)	2008 - current
3.	ACM Human Resources Development Task Force (TF-HRD)	Asian Consortium for Conservation and Sustainable Use of Microbial Resources (ACM)	Asian Consortium for Conservation and Sustainable Use of Microbial Resources (ACM)	2016
4.	Consultant	Project for "Screening potential microbes for controlling <i>Ganoderma boninense</i> "	EC Sham Biotech Sdn Bhd	2015
5.	Consultant	Project for "Testing of new formulation fertilizers for optimization growth in oil palm"	All Cosmos Sdn Bhd	2014 - 2018
6.	Consultant	Project for "Performance of phage-based biopesticide incorporated in fertilizer for prevention and disease control of tomato and dragon fruit"	All Cosmos Sdn Bhd	2011 - 2012
7.	Committee member	Jawatankuasa Teknikal Tender dan Sebut Harga IBS	Institute of Bioscience, Universiti Putra Malaysia	2014
8.	ACM Mutual Aid Association for MBRCs (TF-MAA)	Asian Consortium for Conservation and Sustainable Use of Microbial Resources (ACM)	Asian Consortium for Conservation and Sustainable Use of Microbial Resources (ACM)	2016
9.	Moderator for Diploma Program	Kolej Vokasional (Pertanian) Teluk Intan, Perak	Kolej Vokasional (Pertanian) Teluk Intan, Perak	2016

	Biotechnology			
10.	Evaluator for Module Program PJJ-PRT 3402	UPMHoldings	UPMHoldings	2016
11.	Evaluator for Module Program PJJ-TKP 3104	UPMHoldings	UPMHoldings	2016
12.	Department representative	Penjimatan Elektrik Sistem Pnegurusan Alam Sekitar (EMS) MS ISO 14001: 2004	Faculty of Agriculture, Universiti Putra Malaysia	2013 - current
13.	Committee member	Jawatankuasa Agromedia MARDI	MARDI	2013

(ii) Agreement Initiated / Signed

No	Organization	Activity	Year
1.	All Cosmos Sdn. Bhd.	Memorandum of Agreement (MoA): Characterization, identifaction and preservation of beneficial microbial for agriculture sector	2013 – 2015, Project completed
2.	Arif Efektif Sdn. Bhd.	Memorandum of Understanding (MoU): Up scaling of bacteriophages production as biopesticide for controlling crops diseases	2014 – 2016, Project completed
3.	Arif Efektif Sdn. Bhd.	Memorandum of Agreement (MoA): Up scaling of bacteriophages production as biopesticide for controlling crops diseases	2014 – 2016, Project completed
4.	EC Sham Biotech Sdn. Bhd.	Memorandum of Understanding (MoU): Development of microbial cryopreservation technique, database system, online catalogs and mobile apps. for food and agriculture usage	2016, Initiated.
5.	EC Sham Biotech Sdn. Bhd.	Memorandum of Agreement (MoA): Development of microbial cryopreservation technique, database system, online catalogs and mobile apps. for food and	2016, Initiated.

		agriculture usage	
6.	All Cosmos Sdn. Bhd.	Memorandum of Agreement (MOA): Projek Kebun Mahasiswa Fakulti Pertanian	2017, Initiated.
7.	Por Permpol Co., Ltd, Thailand	Memorandum of Understanding (MoU): Optimization and sustainability study of organic fertilizer for Malaysia soil condition	2014, Initiated.
8.	National Center for Genetic Engineering and Biotechnology (BIOTEC), Thailand	Memorandum of Understanding (MoU): Collaboration and utilization of microbial resources between UPM and BIOTEC	2015-2018 (on-going)

(iii) Conference/ Seminar/ Workshop (2005-2016)

No	Role	Title	Date and Place	Organizer
1.	Chairperson of the Organizing Committee	Regional Conference on Culture Collection (RCCC 2015)	17-18 August 2015, Institute of Bioscience, Universiti Putra Malaysia	Microbial Culture Collection Unit (UNiCC), Universiti Putra Malaysia
2.	Chairperson of the Organizing Committee	Post-conference Workshop Regional Conference on Culture Collection (RCCC2015), Phase 1	19-20 August 2015, Institute of Bioscience, Universiti Putra Malaysia	Microbial Culture Collection Unit (UNiCC), Universiti Putra Malaysia
3.	Chairperson of the Organizing Committee	Post-conference Workshop Regional Conference on Culture Collection (RCCC2015), Phase 2	25-26 August 2015, Institute of Bioscience, Universiti Putra Malaysia	Microbial Culture Collection Unit (UNiCC), Universiti Putra Malaysia
4.	Chairperson of the Organizing Committee	Seminar and Workshop on Utilization of Microbial Resources and Phylogenetic Tree Analysis	15-17 August 2016, Institute of Bioscience, Universiti Putra Malaysia	Microbial Culture Collection Unit (UNiCC), Universiti Putra Malaysia
5.	Head of Secretariat	7 th International Agriculture Congress (IAC 2016)	4-6 October 2016, Hotel-Bangi Putrajaya, Malaysia	Faculty of Agriculture, Universiti Putra Malaysia
6.	Head of Financial and Sponsorship MSM 2016	33 rd Symposium of the Malaysian Society for Microbiology (MSM 2016)	14-17 December 2016, Ramada Plaza, Melaka, Malaysia	Malaysian Society for Microbiology (MSM)

7.	Invited Speaker	The 4 th International Green Tech and Eco Products Exhibition and Conference Malaysia (IGEM)	10-13 October 2013, Kuala Lumpur Convention Centre, KL	Green Tech and 4 th Global Entrepreneurship Summit (GES Malaysia 2013)
8.	Invited Speaker	Agrobiodiversity and Agroenvironment Symposium 2014	15-18 September 2014, Kuching, Sarawak	Malaysian Agricultural Research and Development Institute (MARDI)
9.	Invited Speaker	Phages 2015	1-2 September 2015, St Hilda's College, Oxford, United Kingdom	University of Oxford
10.	Invited Speaker	Visiting trip	3 September 2015, Department of Oncology	University of Oxford
11.	Invited Speaker	3rd meeting of ASEAN Networking of Microbial Utilization (AnMicro3) and 2nd ASEAN Microbial Biotechnology Conference	3-4 August 2016, Sanur Paradise Plaza Hotel, Bali, Indonesia	School of Life Sciences and Technology, Bandung Technology Institute
12.	Invited Speaker	13 th Asian Consortium For The Conservation and Sustainable Use of Microbial Resources (ACM)	8-10 November 2016, Chandigarh, India	Microbial Type Culture Collection & Gene Bank; CSIR-Institute of Microbial Technology
13.	Invited Speaker	My1Bio Conference 2010	30-31 October 2010, Berjaya Times Square Hotel & Convention Centre, Kuala Lumpur	Malaysian Society for Microbiology (MSM)

(iv) Journal Reviewers

No	Manuscript Title	Journal	Year
1.	Biocontrol potentials: bacteriophages isolated from soil samples collected from a chicken farm	Malaysian Journal of Microbiology (MJM)	2016
2.	Influence of glucose and L-asparagine concentrations on L-asparaginase production by endophytic fungi	Journal of Microbiology, Biotechnology and Food Sciences	2016

		(JMBFS)	
3.	Influence of pig manure, urea fertilizer and their combinations on the performance of <i>Amaranthus cruentus</i> in a Rainforest Ultisol, Nigeria	Journal of Agricultural Science and Practice (JASP)	2016
4.	Integrated management of bacterial wilt of ginger incited by <i>Ralstonia solanacearum</i>	African Journal of Microbiology Research (AJMR)	2016
5.	Isolation and characterization of Ascomycetes isolated from <i>Eurycoma longifolia</i> jack and traditional vegetables	Journal of Tropical Agricultural Science	2016
6.	N-octanoyl-L-homoserine lactone enhances the expression of defense genes in tomato against <i>Ralstonia solanacearum</i>	African Journal of Microbiology Research (AJMR)	2016
7.	Simulation study on endophyte-host plant interaction to describe endophyte survival and antifungal activities in planta	Biocatalysis and Agricultural Biotechnology	2016
8.	Sorbed anthracene degradation by sophorolipids producing yeasts	International Journal of Biotechnology for Wellness Industries (IJBWI)	2015
9.	Accumulation of potato virus in nicotiana tabacum callus culture to obtain a virus preparation	Journal of Tropical Agricultural Science	2015
10.	Characterization of phosphate solubilizing bacteria from limestone quarry in Cirebon Indonesia	Journal of International Environmental Application and Science	2015
11.	Shelf-life and molecular identification of biofertilizer inocula	Journal of Tropical Agriculture and Food Science	2015
12.	<i>Streptomyces griseus</i> AK25 a potential antifungal producer for anthracnose in chillies	Journal of Tropical Agriculture and Food Science	2015
13.	Beneficial microorganism isolated from vegetable compost	Journal of Tropical Agriculture and Food Science	2014
14.	Biological control of <i>Colletotrichum gleosporioides</i> the causal agent for anthracnose in red chilli fruits using <i>Streptomyces ambofaciens</i> S2 isolated from Malaysia	Journal of Plant Pathology and Microbiology	2014
15.	Cellulase enzyme activity on bacillus isolated from compost	Journal of Tropical Agriculture and Food Science	2014
16.	Determination of potential microorganisms to degrade rice straw	Journal of Tropical Agriculture and Food Science	2014
17.	Gluconic acid production by bacteria to liberate phosphorus from insoluble phosphate complexes	Journal of Tropical Agriculture and Food	2014

		Science	
28.	Evaluation of biofertilizer from the mesophilic digestion of food waste and Human excreta	British Microbiology Research Journal	2013
19.	Investigations on the amenability of endophytic biocontrol agents to non-photosynthetic GFP-transformation for host colonization studies	The Journal of Microbiology, Biotechnology and Food Sciences	2013
20.	Quantitative assay for sex determination of bovine spermatozoa	Journal of Tropical Agriculture and Food Science	2013

L. KEAHLIAN DALAM PERSATUAN (*Members of Society*) (2000-2016)

No	Society
1.	Member of the Malaysian Society for Microbiology (MSM) (http://www.mymicro.org)
2.	ASEAN Network on Microbial Utilization (AnMicro) (http://www.anmicro.org)
3.	Member of Asian Consortium For The Conservation and Sustainable Use of Microbial Resources (ACM) (http://www.acm-mrc.asia)
4.	Member of British Microbiology Society (http://www.microbiologysociety.org)